(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 28 November 2002 (28.11.2002)

PCT

(10) International Publication Number WO 02/095618 A3

(51) International Patent Classification7: G06F 17/30

(21) International Application Number: PCT/DK02/00340

(22) International Filing Date: 21 May 2002 (21.05.2002)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: PA 2001 00816 09/861,615

21 May 2001 (21.05.2001) DK 22 May 2001 (22.05.2001) US

(71) Applicant (for all designated States except US): MON-DOSOFT A/S [DK/DK]; Vestergade 18E, DK-1456 Copenhagen K (DK).

(72) Inventor; and

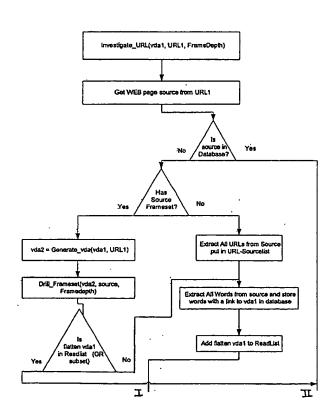
(75) Inventor/Applicant (for US only): HYLDAHL, Anders

[DK/DK]; Niels Brocks Gade 6, 5.tv., DK-1574 Copenhagen V (DK).

- (74) Agent: PLOUGMANN & VINGTOFT A/S; Sundkrogsgade 9, P.O. Box 831, DK-2100 Copenhagen Ø (DK).
- (81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK (utility model), SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR,

[Continued on next page]

(54) Title: A METHOD AND COMPUTER SYSTEM FOR CONSTRUCTING REFERENCES TO VIRTUAL DATA



(57) Abstract: The present invention relates to a method and a computer system enabling referencing to virtual data and in particular to a method and a computer system for constructing a reference to virtual data. In aspect of the present invention a virtual data argument for virtual data is provided. The virtual data argument comprises a data structure holding: at least one identifier each uniquely identifying one or more items of the virtual data, and at least one descriptor uniquely defining relationship between the item(s) identified by the identifier(s). The present invention is particular useful for indexing data, e.g. frame structures, which are not explicitly represented but constructed during execution of an application, e.g. a web-browser.

WO 02/095618 A3

WO 02/095618 A3



GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

(88) Date of publication of the international search report: 6 February 2003

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/DK 02/00340

A. CLASSIFICATION OF SUBJECT MATTER

IPC7: G06F 17/30 According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	
Х	WO 0077686 A2 (SUN MICROSYSTEMS, INC), 21 December 2000 (21.12.00), the whole document	1-34	
X	<pre>EP 1054319 A2 (KOM INC), 22 November 2000 (22.11.00), column 3, line 30 - column 10, line 6, abstract</pre>	1-14,20-30, 33-34	
			
A	EP 0542483 A1 (INTERNATIONAL BUSINESS MACHINES CORP), 19 May 1993 (19.05.93)	1-34	
A	WO 0041510 A2 (STORAGE TECHNOLOGY CORP), 20 July 2000 (20.07.00)	1-34	
			

X	Further documents are listed in the continuation of Box	٦. [X See patent family annex.			
* "A" "E"	Special categories of cited documents: document defining the general state of the art which is not considered to be of particular relevance earlier application or patent but published on or after the international	da the	ater document published after the international filing date or priority ate and not in conflict with the application but cited to understand be principle or theory underlying the invention			
"L"	filing date document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other	"X" document of particular relevance: the claimed invention cannot considered novel or cannot be considered to involve an inventive step when the document is taken alone				
"O"	special reason (as specified) document referring to an oral disclosure, use, exhibition or other means document published prior to the international filing date but later than the priority date claimed	ca be	ocument of particular relevance: the claimed invention cannot be maidered to involve an inventive step when the document is ambined with one or more other such documents, such combination eing obvious to a person skilled in the art ocument member of the same patent family			
Date	e of the actual completion of the international search	Date of mailing of the international search report				
16	16 Sept 2002		1 8. 10. 2002			
Nam	Name and mailing address of the International Searching Authority European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016		y Authorized officer Henrik Andersson/LR Telephone No.			

INTERNATIONAL SEARCH REPORT

International application No.
PCT/DK 02/00340

Category*	Citation of document, with indication, where appropriate, of the rele	vant passages	Relevant to claim No
5-77			
E,A	US 6438559 B1 (WHITE, S.R.N. ET AL.), 20 August 2002 (20.08.02)	1-34	
		•	
1			
			•

INTERNATIONAL SEARCH REPORT Information on patent family members

02/09/02

International application No. PCT/DK 02/00340

	nt document search report		Publication date		Patent family member(s)		Publication date
WO.	0077686	A2	21/12/00	AU US	5478200 6411956		02/01/01 25/06/02
P	1054319	A2	22/11/00	CA US US	2308681 6438642 2002046320	В	18/11/00 20/08/02 18/04/02
ΞP	0542483	A1	19/05/93	CA JP JP US US US US	2055295 2625619 5225065 5561778 5579499 5594881 5652873 5664160 5687343	B A A A A A	13/05/93 02/07/97 03/09/93 01/10/96 26/11/96 14/01/97 29/07/97 02/09/97 11/11/97
4O	0041510	A2	20/07/00	EP US US	1071989 6330621 2002032816	В	31/01/01 11/12/01 14/03/02
JS	6438559	B1	20/08/02	NONE	- 14 0 0 0 0 0 0 14 14 0 0 0 0		

Form PCT/ISA/210 (patent family annex) (July 1998)